

REMARKS

Favorable reconsideration of this application, as present amended and in light of the following discussion, is respectfully requested.

Claims 1-3, 7-9, 14, 15, 19-27, 31, 32, 34, 36, and 38-40 are currently pending. Claims 5, 6, 11, 12, 17, 18, 29, and 30 have been cancelled without prejudice; and Claims 1, 7, 14, 15, and 19-25 have been amended by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, Claims 14, 15, 17, and 18 were objected to as containing an informality; Claims 1-3, 5-9, 11, 12, 25-27, 29-32, 34, 36, and 40 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,833,865 to Fuller et al. (hereinafter “the ‘865 patent”) in view of U.S. Patent No. 7,313,316 to Winter (hereinafter “the ‘316 patent”), further in view of U.S. Patent Application Publication No. 2002/0039485 to Fujita et al. (hereinafter after “the ‘485 application”); Claims 14, 15, and 17-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over the ‘865 and ‘316 patents and the ‘485 application, further in view of U.S. Patent Application Publication No. 2002/0041754 to Kikuchi et al. (hereinafter “the ‘754 application”); and Claims 38 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘865 and ‘316 patents and the ‘485 application, further in view of U.S. Patent No. 6,308,005 to Ando et al.

Regarding the rejection to Claims 14, 15, 17, and 18, Applicants respectfully submit that the objections are rendered moot by the present cancellation of Claims 17 and 18, and the present amendment to Claim 14 and 15. Accordingly, the objections are believed to have been overcome.

Amended Claim 1 is directed to a method of compressing and recording image information as a plurality of video object units on a DVD recording medium according to a

DVD-video format according to a decoding and reproducing unit, the method comprising: (1) performing compression of inputted image data; (2) generating additional information about the inputted image data; and (3) multiplexing, in each video object unit, an additional information block that includes the additional information generated in the generating step at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit, and recording the additional information block on the recording medium, wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit.

Further, Claim 1 has been amended to clarify that the additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation time stamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit. The changes to Claim 1 are supported by the originally filed specification and do not add new matter.¹

Regarding the rejection of Claim 1 under 35 U.S.C. §103(a), the Office Action asserts that the '865 patent discloses everything in Claim 1 with the exception of the structure of

¹ See, e.g., original Claims 5 and 6 as well as paragraphs [0131], [0174], and [0175] in the published application.

each video object unit and the multiplexing of the additional information at a block position immediately after a pack that contains reproduction management information, and that the application information includes a vendor name as a manufacturer of a product, and a product name,² and relies on the '316 patent and the '485 application to remedy those deficiencies.

The '865 patent is directed to an integrated data and real-time metadata capture system, comprising: (1) a digital capture device producing a digital representation of one or more forms of media content; (2) a feature extraction engine configured to automatically extract metadata in real time from the digital content simultaneously with encoding of the content; (3) a storage device configured to store the encoded media content in the metadata; and (4) an output interface in communication with the storage device to generate output data while preserving a temporal relationship between a sequence of the metadata and additional content. As shown in Figure 1, the '865 patent also discloses a collateral data input unit storing metadata related to the device state, which can be formatted with the content data. Further, the '865 patent discloses that the device data information can include lens properties, enclosure values, f-stops, and audio gains. Further, the '865 patent discloses that the metadata may be combined with the content data using the MPEG-7 format or in other formats such as Apple QuickTime.³

However, as admitted in the outstanding Office Action, the '865 patent fails to disclose the step of multiplexing, in each video object unit, an additional information block that includes the additional information generated in the generating step at a block position immediately after a pack that contains reproduction management information of the imported image data and immediately before a group of blocks that include compressed image information, wherein each video object unit is a unit of reading and writing as recited in amended Claim 1.

² See page 4 of the outstanding Office Action.

³ See '865 patent, column 6, lines 13-22.

Further, as admitted in the outstanding Office Action, the '865 patent fails to disclose that the additional information that is multiplexed and recorded on the information medium includes at least application information, the application information including a vendor name as a manufacturer of a product, and a product name, as recited in amended Claim 1.

Further, Applicants respectfully submit that the '865 patent fails to disclose that the additional information block and at least one of the corresponding group of blocks includes a same presentation time stamp, which is time management information about reproduction output of the information and the decoding and reproducing unit, as recited in amended Claim 1. Applicants note that the '865 patent is completely silent regarding a presentation time stamp.

The '316 patent is directed to a method of assembling a decodable bitstream having a data structure fulfilling the requirements of the DVD-video format and the DVD-VR format, wherein the data of the bitstream includes a first main overhead data, and multiple data units, each data unit including a navigation pack, as well as one or more video and audio packs. Further, the '316 patent discloses that each of the data units includes a second data unit that is a RDI_PCK pack (Real-time Data Information) that is used for the DVD-VR type recorder or player. In particular, the '316 patent discloses that the RDI_PCK pack points in the stream to the beginning of each VOB according to the DVD-VR standard, part 3, chapter 2.4 and 5.4.4. As illustrated in Figures 2 and 3, the '316 patent discloses a data format in which the same data stream can be used for either a DVD-Video reader or a DVD-VR reader. As shown in those figures, the '316 patent discloses that the RDI packet is not used for the DVD-video format, but is merely inserted so that the overall data stream can be used in either system. Thus, the '316 patent discloses that, in the DVD-VR system, the RDI pack is actually the first pack while the NV_PCK pack is the last pack in the VOB.

However, as admitted in the outstanding Office Action, the '316 patent fails to disclose that the additional information includes at least application information, and the application information includes a vendor name as the manufacturer of a product, and a product name, as required by Claim amended 1.

However, Applicants respectfully submit that the '316 patent fails to disclose the step of multiplexing, in each video object unit, and additional information block that includes the additional information generated in the generating step at a block position immediately after a pack that contains a reproduction management information, and immediately before a group of blocks that include compressed image information, wherein each video object unit is a unit of reading and writing, as recited in amended Claim 1. Rather, the '316 patent merely discloses that in a new combined DVD-video and DVD-VR format, an RDI pack, which is only used by the DVD-VR reader, is inserted after a navigation pack. However, the RDI pack disclosed by the '316 patent contains pointers to the data stream, and is unrelated to the additional information recited in Claim 1. In this regard, Applicants note that Figure 5 in the second embodiment disclosed by Applicants' specification relates to the DVD-VR format and discloses RDI packs. In contrast, in a non-limiting example, Figures 4A and 4B, which are directed to the DVD-video format, do not include RDI packs. Accordingly, Applicants respectfully submit that Figures 2 and 3 in the '316 patent are irrelevant to Claim 1. At most, Figures 2 and 3 of the '316 patent merely disclose that another type of pack can follow the navigation pack in a VOB, but does not teach or suggest that the additional information recited in Claim 1 should be stored in that pack. Rather, the '316 patent merely discloses that a well-known RDI pack used in the DVD-VR standard can be included in the combined system, but that the RDI pack is only used by the DVD-VR reader.

Further, Applicants respectfully submit that the '316 patent fails to disclose that the additional information block and at least one of the corresponding group of blocks includes a

same presentation timestamp, which time management information about reproduction output of the information and the decoding and reproducing unit, as recited in amended Claim 1. Applicants respectfully submit that the '316 patent is completely silent regarding presentation time stamps.

The '485 application is directed to a multi-controller that includes means for generating a control signal in association with a declination operation in plural directions, means for generating a control signal in association with the rotation operation of a circular arc, and means for generating a control signal in association with a shifting operation in front and back. Further, as noted by the outstanding Office Action, paragraph [0049] of the '485 application discloses that, as shown in Figure 4, RDI data can include the MNFI field, which includes "manufacturer information."

However, Applicants respectfully submit that the '485 application fails to disclose that the additional information that is multiplexed and recorded on the recording medium includes at least application information that includes (1) a vendor name as a manufacturer of a product, and (2) a product name, as required by amended Claim 1. Rather, the '485 application merely discloses "manufacturer information." However, Claim 1 requires that the multiplexed information includes at least a vendor name **and** a product name. In this regard, Applicants note that page 5 of the outstanding Office Action asserts that "the manufacturer information can be a product name and [a] vendor name." However, Applicants note that Claim 1 requires both a vendor name and a product name, and that the '485 application merely discloses manufacturer information. The '485 application does not disclose two pieces of manufacturer information and does not disclose a vendor name and a product name. The Office Action merely speculates that the "manufacturer" information can include both a product name and a vendor name.

Further, Applicants respectfully submit that the '485 application fails to disclose that the additional information block and at least one of the corresponding group of blocks includes a same presentation time stamp, as required by amended Claim 1. While paragraph [0112] in the '485 application discloses a presentation time stamp, the '485 application does not disclose that the additional block that is multiplexed with the group of blocks includes a same presentation time stamp as the presentation time stamp in the corresponding group of blocks, as required by amended Claim 1.

Thus, no matter how the teachings of the '865 patent, the '316 patent, and the '485 application are combined, the combination does not teach or suggest that the application information includes a vendor name as a manufacturer of a product, and a product name, as well as that the additional information block and at the at least one of corresponding group of blocks includes a same presentation time stamp, which is time management information about reproduction output of the information in the decoding and reproducing unit, as recited in amended Claim 1. Accordingly, Applicants respectfully submit that the rejection of Claim 1 (and all similarly rejected dependent claims) is rendered moot by the present amendment to Claim 1.

Independent Claims 7 and 25 recite limitations analogous to the limitations recited in Claim 1, and have been amended in a manner analogous to the amendment to Claim 1. Accordingly, for the reasons stated above, Applicant respectfully submits that the rejection of Claims 7 and 25 (and all associated dependent claims) are rendered moot by the present amendment to Claims 7 and 25.

Amended Claim 19 is directed to a reproducing method, comprising: (1) reading compressed image information according to a decoding and reproducing unit from a DVD recording medium according to a DVD-video format, decompressing the compressed image information, and reproducibly outputting image information according to the decoding and

reproducing unit, wherein the recording medium records inputted image data as a plurality of video object units in a data compression manner according to the decoding and reproducing unit, and records an additional information block, the additional information block obtained by multiplexing, in each video object unit, an additional information block that includes additional information generated by an additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit and recording the additional information block on the recording medium, wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; and (2) extracting the additional information contained in the decoding and reproducing unit and reproducibly outputting the additional information in synchronization with reproduction output of the image information according to the decoding and reproducing unit, wherein each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit.

Further, Claim 19 has been amended to clarify that the additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about

reproduction output of the information in the decoding and reproducing unit. The changes to Claim 19 are supported by the originally filed specification and do not add new matter.

As discussed above, the combined teachings of the '865 patent, the '316 patent, and the '485 application fail to teach or suggest that the additional information includes a vendor name and a product name, and that the additional information block and at least one of the corresponding group of blocks includes a same presentation time stamp, as recited in Claim 19.

The '754 application is directed to a recording/reproducing apparatus including a first recording/reproducing medium, a first recording/reproducing processing section configured to record information on or reproduce information from the first recording/reproducing medium, a second recording/reproducing processing section configured to record information on or reproduce information from a second recording/reproducing medium; a display signal output section configured to supply an external device within a reproduction signal from at least one of the first and second recording/reproducing processing sections; and a system control section configured to control operation of the apparatus.

However, Applicants respectfully submit that the '754 application fails to remedy the deficiencies of the '865 patent, the '316 patent, and the '485 application, as discussed above. In particular, Applicants respectfully submit that the '754 application fails to disclose the multiplexing of the additional information, the vendor name and the product name limitations, and the same presentation time stamp limitation recited in amended Claim 19.

Thus, no matter how the teachings of the '865 patent, the '316 patent, and the '485 application, and the '754 application are combined, the combination does not teach or suggest the additional information block including the product and vendor name, and the same presentation time stamp limitations recited in amended Claim 19. Accordingly, Applicants

respectfully submit that the rejection of Claim 19 (and all associated dependent claims) is rendered moot by the present amendment to that claim.

Regarding the rejection of dependent Claims 38 and 39, Applicants respectfully submit that the '005 patent fails to remedy the deficiencies of the '865 patent, the '316 patent, and the '485 application, as discussed above. Accordingly, Applicants respectfully submit that the rejections of Claims 38 and 39 are rendered moot by the present amendment to Claim 1.

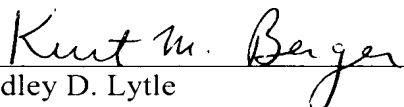
Independent Claims 20-24 recite limitations analogous to the limitations recited in Claim 19, and have been amended in a manner analogous to the amendment to Claim 19. Accordingly, for the reasons stated above, Applicant respectfully submits that the rejections of Claims 20-24 are rendered moot by the present amendment to those claims.

Thus, it is respectfully submitted that independent Claims 1, 7, and 19-25 (and all associated dependent claims) patentably define over any proper combination of the cited references.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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